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ADAPTIVE TURBO DECISION FEEDBACK EQUALIZATION METHOD AND DEVICE

5 ABSTRACT OF THE DISCLOSURE

The invention provides an adaptive turbo decision feedback equalizer for executing an adaptive turbo decision feedback equalization method in response to a reception a packet including samples transmitted to the adaptive turbo decision feedback equalizer via a channel. The adaptive turbo decision feedback equalizer generates a first set of soft estimates of bits based upon a computation of a first feed-forward filter and a first feedback filter as a function of an estimation of the channel. The adaptive turbo decision feedback equalizer subsequently generates additional sets of soft estimates of the bits and a set of hard estimates of the bits based upon a computation of additional feed-forward filters and additional feedback filters as a function of a plurality of additional soft symbol estimates.